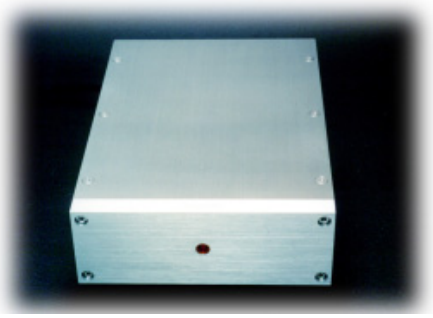
Dynavector DV- PHA-100
Instruction Manual

The Dynavector phono head amplifier PHA-100 is a complete redesign of our original head amplifier the PE-1, using new circuitry and the most advanced and highest quality IC's, resistors and capacitors currently available.

The PE-1 was designed more than 15 years ago using an entirely new patented circuit. During the development of the highly acclaimed XV-1 cartridge, its performance was optimised through the use of the original PE-1, making it superior to any other cartridge available.To build on this, we decided to redesign the PE-1 with the specific aim of making it the most advanced head amplifier available for the new cartridge. The result is that the performance of the PE-1 has been significantly improved following intensive design work and after comparing many prototypes using alternative components. The result is the PHA-100.



Important factors in reproducing music such as the preservation of natural ambience, a wide dynamic range and harmonic fidelity are easily overlooked by conventional methods of amplifying the signal of the cartridge's output voltage.There is no shortage of expensive head amplifiers and step up transformers for MC cartridges on the market, all of which have the aim of amplifying the very low output voltage of MC cartridges with the highest fidelity

In the PHA-100 ***the maximum current*** is taken from the cartridge by an active electronic circuit. This current is then converted to a voltage sufficient to drive a conventional preamplifier For the PHA-100, the current sensitivity of the cartridge is the most important consideration. By using current amplification, the magnetic distortion of MC cartridges is significantly reduced but the S/N ratio was still a problem when the PHA 100 was designed 15 years ago. Today, thanks to the latest technology and components, very low noise operational amplifiers are available and the S/N problem of head amplifiers has been solved.

SPECIAL FEATURES

■ The PHA-100 has an impedance selection switch to provide the correct match for either low or medium impedance MC cartridges. In this way, users are able to get the best sound from their cartridge.

■ The PHA-100 makes use of a unique patented circuit designed to provide the maximum fidelity from vinyl sources.

■ Dynavector is proud of its long record of innovation in the hi-fi field. Our DV-DRT XV-1 cartridge, DV-PHA-100 head amplifier and DV SuperStereo processors are our answer to a digital industry threatening to destroy much of the great recorded musical heritage of the last century.

SPECIFICATIONS

Type	:Current maximising phono amplifier
Output voltage	:Dependent on the current sensitivity of cartridge
Frequency Response	:10 - 50,000Hz, (+0dB -0.5dB)
S/N ratio	:over 62 dB(FLAT)
Cartridge impedance	:position 1 — impedance 4 - 7 ohms
	:position 2— impedance 30 - 40 ohmsOptimum position selectable
Power supply	:AC 100volts, 115volts, 230volts, 2VA
Size&Weight	:Main unit: 120w x 176D x 45H mm,900g
	:Power supply unit: 82w x 132D x 45H mm, 800g
Country of origin	:Made in Japan

INSTALLATION PROCDURE

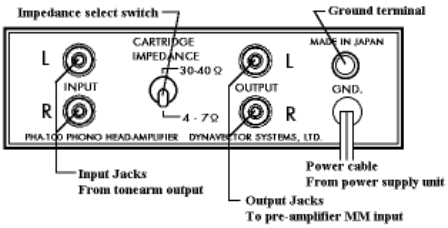
1.Connections

1) Connect the tonearm lead phono plugs to the inputs of the PHA-100.

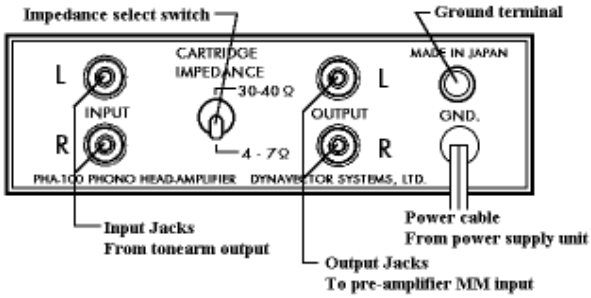
2) Connect the earth lead of the tonearm to the GND (earth) terminal of the PHA-100.

3) The output sockets of the PHA-100 should be connected to **the MM phono inputs of the pre-amplifier or the inputs of a MM phono stage.** You should not connect them to **the MC phono inputs**.

4) The power cable of the PHA-100 main unit should be connected to the AC power output socket of the power supply unit. Please ensure that you lock the power cable firmly to the power output socket of the power supply unit. We recommend that the power cable of the power supply unit be connected to the Switched AC Outlet of the pre-amplifier where such an outlet is available.



Main Unit



Main Unit

2. Adjustments

1) Cartridge Impedance matching

Select the position suited to your cartridge's impedance.

- ■ upper position 30 - 40 ohms
- ■ lower position 4 - 7 ohms

When the pre-amplifier has a variable impedance, you should set it to an over 30 Kohms position. Operation below 30Kohms would cause a deterioration in low frequency response.

The PHA100 is a current maximising head amplifier. This means that the output voltage of the PHA100 varies according to the cartridge impedance. Please note that the optimal output voltage is not achieved unless the PHA impedance switch is set to match the cartridge's impedance.

2) Polarity of power supply

We have found that the polarity of the power supply can influence the character of the sound. Please therefore check the polarity of the AC plug of the PHA100 when you connect it to the power outlet. The ground (earth) is indicated by a white dot mark on the AC plug. Use the polarity which gives the best result.

3) Note

■ Do not use the PHA-100 with a MM cartridge because the PHA-100 is designed solely for MC cartridges.

■ To avoid any hum problems, the power supply unit of the PHA-100 should be located as far as away as practicable from the main unit of the PHA-100.

■ Before you change the cartridge or operate the impedance switch of the PHA-100, you should ensure that the volume control of the pre-amplifier is turned to a minimum or the AC power to your audio system is turned off to avoid the possibility of causing any damage.

■ Do not connect any components e.g. transformers, capacitors or resistors between the PHA-100 and the cartridge because the circuit of PHA-100 is of a design unlike that of other voltage amplifiers.

3. Positioning

Be sure to locate PHA-100 where:

- ■ there is reasonable air circulation
- ■ it is free from vibration
- ■ it is not subject to magnetic fields.

4. Caution: Note for Reviewers

When the PHA-100 is being used by reviewers for listening tests, particular care needs to be taken so that neither the unit nor any part of the audio system suffers damage. This is because, as mentioned above, the circuit of the PHA-100 is of unconventional design and dissimilar to other voltage amplifiers in that the current of the MC's coil is maximised. In other words, the MC's coil acts as though it is short circuited. If, therefore, the PHA-100 is tested by using the usual signal generator, the current flow into the PHA-100 would be excessive with the result that the high current seriously damages the IC's of the PHA.

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